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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,742	12/01/2003	Gyuyoung Han	11499-0004-999	6911
20583	7590	06/20/2006	EXAMINER	
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			ISSING, GREGORY C	
			ART UNIT	PAPER NUMBER
			3662	

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,742

Applicant(s)

HAN, GYUYOUNG

Examiner

Gregory C. Issing

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/05</u> . | 6) <input type="checkbox"/> Other: ____. |

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite since it is unclear how the function of the preamble is related to the body of the claims which consists of switching between two GPS receivers. The language "optimizing performance of a system for optimizing a location-based service by adjusting a maximum antenna range" is not understood and fails to provide a clear and distinct meaning. It is unclear what antenna is adjusted. There is no claimed difference between the operation of the C-GPS receiver and the claimed A-GPS receiver. What makes up an A-GPS receiver?

Claim 1 is indefinite since it is not clear how geolocation information is generated by using first navigation data from a first satellite; what is "geolocation information" and how is it determined from a less than four satellites? What does the "first navigation data" refer to?

Claim 1 is indefinite since it is not clear what "A-GPS data" is.

The language of claim 2 is not understood with respect to "for switching on and off to have the GPS antenna to be connected alternately . . . "

Claims 11 and 12 are not seen to further limit the independent claim since each of the limitations appears in the independent claim.

Claim 14 is indefinite since it is not understood how pseudorange is determined from one satellite, or how network ID and base station ID are determined from a GPS signal.

Claim 15 is indefinite for reasons similarly set forth with respect to claim 1.

Claims 21 and 22 are not seen to further limit the independent claim since each of the limitations appears in the independent claim.

Claims 24 is indefinite since it is not understood how pseudorange is determined from one satellite, or how network ID and base station ID are determined from a GPS signal.

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Claim 25 is indefinite for reasons similarly set forth with respect to claim 1. additionally, the wireless modem for generating and transmitting a MAR optimizing signal" is indefinite since it is unclear what this represents, where it was determined or how it is generated.

Claim 27 is indefinite in light of its dependence on claim 25 directly since no UART chip is described therein.

Claims 29 and 30 are not seen to further limit the independent claim since each of the limitations appears in the independent claim.

Claim 32 is indefinite since it is not understood how pseudorange is determined from one satellite, or how network ID and base station ID are determined from a GPS signal.

Claim 33 is indefinite for reasons similarly set forth with respect to claim 1. In step (a), the language "at each measuring point" lacks clarity; what defines a "measurement point"? It is not understood what performs the step of "transmitting" an identification code; does this refer simply to the conventional cell ID transmitted by a base station, a cell ID received by the test apparatus from said station, or something else? The language "transmitting a identification" is grammatically incorrect. In step (b), the language "searching and receiving a GPS signal" is grammatically incorrect; what is meant by searching a GPS signal? In step (c) the claim fails to clearly and distinctly define "A-GPS data." In step (d) again the language "searching and receiving a GPS signal" is grammatically incorrect. In claim 36, the language "searching and receiving a GPS signal" is grammatically incorrect.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsujimoto et al (2002/0190896) in view of Yamazaki (6,919,841)

Tsujimoto et al teach position determining of a mobile communication device wherein the device is capable of operation in any one of a plurality of modes including operation in a stand-alone mode, a

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network-aided mode, and other modes [0025]. Figure 3 shows the apparatus including user interface 306 for inputting data to the apparatus. A mode determiner 312 selects which mode of operation is to be used upon user request 308 which may include position accuracy, time cost etc. The mode determiner is also responsive to a network communication state input 322 which determines if the network is available. If the network is not available the GPS section operates in a standalone mode and thus acts as a conventional GPS receiver (claimed C-GPS) [0041]. If the network is available, one of the selectable modes comprises assisted GPS (the claimed A-GPS) [0042]. Inherently, an antenna is associated with the GPS section. A processing section controls the operation of the terminal components and reads on the claimed "embedded board having a CPU." The terminal includes a conventional wireless communication device that communicates with the communication network and inherently includes a modem for communicating data and voice between the terminal and the network.

Tsujimoto et al differ from the claimed subject matter since the disclosure therein is not specific as to the sharing of a common antenna for the reception of signals in either the stand-alone mode or assisted mode.

Yamazaki teaches the conventionality of a navigation device that includes both a conventional GPS receiver 7 and an assisted GPS receiver 9 coupled to a common antenna 1 (see Figure 2, e.g). Richton et al teach the conventionality of integrating GPS in a wireless communication device wherein it is taught that a database may be created that associates base station measurements to global positions wherein the global positions are determined using assistance information that narrows the frequency range and code phase range searches. In light of the fact that the device is used for navigation, location-based services, emergency reporting of position, mapping, it is obvious to the skilled artisan that a memory exists for storing data within the terminal. The use of a battery, indicators, display, etc, are obvious designs common to both GPS devices as well as portable phones. The features of the preamble are not afforded any weight since there is nothing in the body of the claim to support such.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Garceran et al (6,522,888) disclose the determination of cell coverage using a GPS receiver integrated with a wireless communication device such that reception levels of cell base stations can be mapped accurately with known positions as determined by GPS. Richton et al (6,570,529) disclose an integrated

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wireless communication GPS system that reliably determines the location of a mobile terminal using GPS or downlink measurements. Ito et al (6,289,279) discloses integrated primary and secondary positioning system receivers which are selectively chosen on the basis of reception data. Forrestere (2003/0132877) discloses a conventional assisted GPS receiver device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Gregory C. Issing
Primary Examiner
Art Unit 3662

gci